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# USE AND PERCEPTION OF E-RESOURCES AMONG THE COLLEGE STUDENTS OF THIRUVANANTHAPURAM, KERALA: A STUDY

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## Abstract

The purpose of this study is to examine the use and perception of E-Resources by the College Students in Thiruvananthapuram, Kerala. The present study is descriptive survey method and covers 120 students were randomly selected. Data were collected using questionnaire. The questionnaire discusses their socio-demographic information, find out that Statistical Package Social Sciences (SPSS). The researcher has used MS Excel and MS Word to create and format tables required for the study. Therefore one fourth of the male and female students visit the library daily, 25% of the respondents spend 1-2 hours for using the college library per day, 55% of the respondents the gender -wise female respondents visit the college library, 37.6% of the respondents learn internet skills by trial & error method/ self-instruction, 33.33% of the married and unmarried respondents are highly satisfied of using college internet services, 35 (29%) respondents are highly satisfied with use of e-journals, 48.34% majority of the respondents search for the articles by keyword wise in the in college libraries, 26.67% of the rural and urban respondents time spend an hour for accessing e- resources , 29.2% of the respondents use Google for search information from internet, 48.33% majority of the respondents faced main problems for using E-resources is slow speed of systems.

**Keywords:** *e-resources, Internet, e-journals, library use, search methods, Time spent*

## Introduction:

The last two decades have witnessed the development and growth of internet as offshoot of post second world war era. Use of the internet and its application such as the World Wide Web is no longer a novelty but very common as the use of telephone and television. Internet is the fastest mass media growing globally, while the radio took thirty five years to reach 50 million users and the television 13 years, the internet and the www have naturally attracted the attention of a vast body of researchers ranking from philosopher to technocrats.

The popularization of the internet has resulted in a mushroom growth of internet cafes. Anyone could access internet even without personal computer or online connection. The increasing popularity of the internet leads to question about the impact of the technology on the lives of its users and nonusers.

### **Literatures of review**

**Balasubramanian, Beula and Ibrahim (2014)** examined a survey study on A Study of Use and Attitude towards Electronic Sources among the Librarians of Colleges Affiliated to Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu. Questionnaire was used to collect data from the Librarians of the colleges affiliated to Manonmaniam Sundaranar University. The sample is taken using survey method. Out of 70 questionnaires distributed, 60 were received back. The study was conducted with an aim of to know the use of E-Sources among the librarians, to understand the awareness and attitude of librarians, to find out the use of most preferable E-Source use by the librarians, to find out the use of the most preferable search engine by the librarian. The study reveals that: It was found that the E-Information Sources are almost provided by more than 90% of the college libraries. The librarians expressed high levels of Satisfaction with regard to e-Sources. It was obvious that most of the librarians had gained exposure in the e-field. A few colleges have yet to give importance to the e-resources. It was found that in most of the colleges, the computer sections are well maintained. It was observed that there existed further scope for developing the e-infrastructure by a few colleges. It is suggested that: A few advanced level academic exercises like workshops, refresher courses, seminars and guest lecturers become necessary for updating knowledge. Likewise, more e-journals could be subscribed by the libraries. The recent developments in the field of e-resource should be made known to library faculties.

**Dhanavandan, Mohammed Esmail and Nagarajan (2012)** undertook a survey study on Use of Electronic Resources at Krishnasamy College of Engineering & Technology Library, Cuddalore. Questionnaire was used to collect data from the Krishnasamy College of Engineering & Technology Library, Cuddalore. The sample is taken using survey method. Out of 150 questionnaires distributed, 118 were received back. The study was conducted with an aim of to assess the amount of familiarity and frequency in the use of the different types of electronic resources, To find the purpose and utilization of the electronic resources and services by the users, to know the level of satisfaction on current e-resources, to know the difficulties encountered by the users while using e-resources and to assess the opinions of users on electronic format over the print format. The study reveals that: The major findings are students are leading users of e-resources in terms of respondents. 77% of students

and 23 % of faculty members. Majority of the users (42%) indicated that they preferred print version of resources for their convenience. 36% of users from the computer science & Information technology. It is higher than others. In the aspect of frequency of visit, 29 % of users visits library at weekly once and 7% of rarely visits to library. Of the total 113 users aware of facilities and services of digital library and make use of it. 30% users visits digital library at weekly once and make use of it. Only 12% of the respondents use e-resources rarely. A total of only 24 respondents indicated they have at least 2 years experience in using e-resources, an indicator that the concept of e-journals is still fairly new phenomenon, most (45%) of the students using the e-resources for studying and 18.6 % of users for updating the knowledge. Half of the users (55%) preferred electronic journals and e-books. It is higher than the other types of resources. And 28 % of respondents preferred CDs/DVDs. the highest percentage (34%) of the users access the IEL online. Only 8 respondents felt that poor collection of resources available in digital library. The problems encountered by the users are measured, 31% of the respondents rated that downloading is a major problem. Also 26% of the users said that lack of knowledge is another major problem. Majority (66%) of the respondents satisfied with the e-resources available in the library.

**Kumbar, Lamani and Gourikeremath (2016)** examined a survey study on Utilization of E-Resources by Research Scholars of Science Departments, Karnatak University, Dharwad. Questionnaire was used to collect data from the Research scholars. The sample is taken using simple random strategy. Out of 100 distributed, 92 were received back. The study was conducted with an aim of to identify the awareness of research scholars on E-Resources, to find out the frequency of use of E-Resources, to know the purpose of the use of E-Resources, to find out the problems faced by the research scholars while accessing E-Resources, to analyze the dependency of research scholar on E-Resources, to identify the place from which the research scholars access E-Resources and to know the different types of the E-Resources being provided by the KUD, Library. The study reveals that: that majority of respondents i.e. 30 (32.6 %) of them visit library occasionally, Out of the 92 respondents, the majority of respondents that is, 46 (50%) have a fair knowledge of electronic information resources, It reveals that majority that is 81 (88%) respondents access information in their respective department, indicates that majority 86 (93.4%) of the respondents use e-resources for research work, 75 (85.5%) percent for finding relevant information in their area of specialization, 44 (47.8%) research scholars agree to the statement they can now do better and quality research because of availability of e- resources, among the research scholars who responded to the study, majority of

them 64 (69.5%) learnt through trial and error, 63 (68.4%) of scholars prefer journal title as their search strategy, majority 44 (47.8%) get updated information through email or newsletter and through friends and It is revealed from the views of majority of respondents 64 (69.5%) that the most common problem is that of slow access speed.

**Patel and Darbar (2017)** undertook a survey study on the Availability and Use of E-Resources by Users of CKSVIM Library, Vadodara: A Study. Questionnaire was used to collect data from the Students, Faculties and Ph. D. Scholars. The sample is taken using random sampling method. Out of 267 questionnaires distributed, 235 were received back. The study was conducted with an aim of To know the awareness of e-resources among the users of CKSVIM library, to know the Internet skills of the respondents, to identify the purpose of using electronic resources, to identify satisfaction level of availability of e-resources in the CKSVIM library, to know the use of different e-resources among the respondents, to know the satisfactory level of using e-resources. To find out the factors that influences them to use e-resources, to identify the impact of electronic resources on their learning, teaching and research activities, to know the problems faced by the respondents while accessing e-resources, to study the feedback and suggestions of the CKSVIM library users. The study reveals that: Out of 267 questionnaires were distributed and 235 (88.01%) questionnaires were responded properly. A high percentage of respondents 71 (30.21%) are visiting the library once in week. 128 (54.47%) are of the opinion that they are expert in internet skills. 177 (75.32%) respondents are aware of CKSVIM library e-resources. It is suggested that: Most of respondents are agreed with availability of e-resources in CKSVIM library, like a Internet /Wi-Fi Facility, e-books, e-journals & magazines, e-questions papers, CDs/DVDS, subjects books PPT's, e- syllabus, e-employment news, e-thesis & projects and e-database. Internet facility and e-books is the type of e-resources accessed/used by maximum 235 (100%) and 189 (80.42%) number of respondents. Out of 235 respondents 83 (35.32%) of the respondents use e-resources daily. Maximum of the respondents 151 (64.26%) states that e-resources are highly useful.

**Sohail and Ahmad (2017)** investigated a study on Use of Electronic Resources and Services by Faculty Members and Students of Fiji National University. Questionnaire was used to collect data form students and faculty members and analyzed. The sample is taken using survey method. Out of 150 questionnaires distributed, 140 were received back. The study was conducted with an aim of Explore the awareness, use and perceived importance of the e-resources among the faculty members and students. Study the purposes for which e-resources are

used by the faculty members and students. Find out the frequency of usage of the e-resources. Determine the level of satisfaction among the users of electronic services. Know the benefits of e-resources over the conventional documents. Identify the problems faced by the students and faculty members while accessing and using e-resources and services. The study reveals that: majority of the users of FNU libraries keep themselves abreast of developments in electronic resources, services and their proper utilization in the field of academic and research. The result showed a growing interest in e-resources among the users and also found that slow downloading and blockage of website is the hurdle in proper utilization of electronic resources. The survey further reveals that the majority of respondents are aware of the usage of e-resources and services. It is suggested that: The study has shown that e-resources and services provided by FNU libraries perform an increasingly important role in research at Fiji National University. Not only current e-resources are required, but faculty members and students need to be provided with the use of significant electronic back runs as well. With the changing paradigm of educational horizon, an electronic resource has gained global currency.

**Thanuskodi and Ravi (2011)** Conducted a Survey on Use of Digital Resources by Faculty and Research Scholars of Manonmaniam Sundaranar University, Tirunelveli. Questionnaire was used to collect data from the study comprised faculty members and research scholars. The sample is taken using random as they study unit. Out of 200 questionnaires distributed, 140 were received back. The study was conducted with an aim of to assess the amount of knowledge and frequency in the use of the different types of digital resources made by the faculty members and research scholars, to find out the purposes for using digital resources, to discover problems faced by the faculties and research scholars while accessing the digital resources, to know the adequacy of information in digital resources. Investigate whether the digital resources can replace the print resources, to suggest suitable suggestions to improve the digital resources and services for the benefit of users. The study reveals that: results show that 67.14 per cent of the faculty is familiar with the use of digital resources, and majority of these members are using digital resources for research purpose. Study also reveals that majority of the faculty members are learning the required skills for the usage of digital resources through self-study. It is suggested that: Awareness should be generated about the online journals to obtain current information. The University administration should create programmes and infrastructures to train its staff on ICT with particular reference to the use of digital resource facilities. There is

a need to develop knowledge about use of digital resources. More computer terminals should be installed in the library for easy access to faculty, research Scholars and students Efforts should be made to increase the speed of the Internet access.

**Tripathi, Sonkar and Rajbanshi (2016)** undertook a survey study on the Use and Impact of E-Resources among Research Scholars: A Comparative Study of Agriculture and Technology Universities in Uttar Pradesh. Questionnaire was used to collect data from the research scholars. The sample is taken using random sampling method. Out of 200 questionnaires distributed, 196 were received back. The study was conducted with an aim of To study the various type of electronic resources used by research scholars, to study the intention and occurrence of using the electronic resources and services available in the library. To examine the problems faced by research scholars in accessing electronic resources, to find out the impact of e-resources over conventional sources of information, to study the impact of electronic resources on the academic and research work. The study reveals that: Majority of the users are aware of e-resources and used e-resources in a month for the learning, study and research. The most of the scholars preferred e-journals due to ease of searching and browsing facilities. They are utilizing print as well as electronic resources for various purpose .majority of research scholars are not satisfied with the availability of e-journals, internet connectivity and its speed. It is suggested that: A comprehensive collection development policy of acquisition of e-resources must be framed. The library must be automate housekeeping operations and ensure that services to their users are efficiently provided, which includes networking operations. The library should be open a separate e-resources section and open 24X7 so that the users can access e-resources without any problem. The software that is used in designing e-resources should have context sensitive, comprehensive help features so that they can solve the problem of users while searching the e-resources.

**Tyagi (2014)** examined a survey study on Analytical study of usage of electronic information resources at pharmacopoeial libraries in India. Questionnaire was used to collect data from the pharmacopoeial libraries. The sample is taken using descriptive statistical methods. Out of 73 questionnaires distributed, **60** were received back. The study was conducted with an aim of To know the availability of different types of e-resources in pharmacopoeial libraries in India, Preferences of the scientists toward print and e-resources, Use and impact of e-resources

on quality of research in pharmacopoeial laboratories in India, Pattern of using e-resources by scientists of pharmacopoeial Laboratories in India and to suggest the ways and means for strengthening of the e-resources collection development. The study reveals that: the personal experiences and perceptions they have had on practice and research activity using e-resource. The major findings indicate that of the total anticipated participants, 78% indicated that they perceived the ability to use computer for electronic information resources. The data analysis shows that all the scientists belonging to the pharmacopoeial libraries used electronic information resources to address issues relating to drug indexes and compendia, monographs, drugs obtained through online databases, e-journals, and the Internet sources—especially policies by regulatory agencies, contacts, drug promotional literature, and standards. It is suggested that: This study presents the usage of e-resources in three pharmacopoeial libraries, and more exploratory work is needed to determine the situation both nationally and internationally. Research into this area also needs to understand and contextualize its subjects' access to information—in particular, electronic information—to fully understand both information needs and potential and existing barriers to those needs.

### **Need and Significance of the Study**

In the digital era the technical and other professional educational institutions have played a significant role in shaping the future of tomorrow's societies and these resources (electronic) have distinct advantages over the print media. In the present situation higher education is bound to opt for the unavoidable shift from the culture of print to a culture of digital technology. This affects teaching learning and research but also the whole of higher education

### **Statement of the Problem**

The study is entitled as "Use and perception of e-resources among the college students of Thiruvananthapuram, Kerala: A study

### **Purpose of the Study**

The purpose of the study is to examine the use and perception of e-resources among the college students of Thiruvananthapuram, Kerala.



### **Objectives of the Study:**

Aim and objective of the study is to know the uses of e-resources by college students in Thiruvananthapuram, Kerala.

The main objectives of the study are:

- ❖ To elicit the socio-demographic information about the respondents.
- ❖ To study the purpose and frequency of using the electronic resources in the library.
- ❖ To know the different types of electronic resources used by the college students in Thiruvananthapuram, Kerala.
- ❖ To find out the problems faced by college students while using the e-resources.
- ❖ To find out the level of satisfaction of various types of using e-resources.
- ❖ To study the methods of learning internet skills.
- ❖ To study the satisfaction while using college internet services.
- ❖ To study methods of searching articles.
- ❖ To find out the tools deployed to search and access e-resources.
- ❖ To find out the Major problems faced while using e-resources.

### **Tenability of Hypotheses**

The set of hypotheses formulated, were subject to the application of appropriate statistical tools.

The results are given below:

- ❖ There is no association between the gender of the respondents and their frequency of visit the library.
- ❖ There is no association between age category of the respondents and their spent in the college library per day.
- ❖ There is no association between residing sector category of the respondents and their while using Internet services.
- ❖ There is no association between Nativity category of the respondents and their spend e -resource per day.

### **Research Methodology:**

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. It is necessary for the researcher to know not only the research

methods/techniques but also the methodology. Researchers not only need to know how to develop certain indices or tests, how to calculate the mean, the mode, the median or the standard deviation or chi-square, how to apply particular research techniques, but they also need to know which of these methods or techniques, are relevant and which are not, and what would they mean and indicate (Kothari & Garg, 2014).

The present study is a descriptive method. The questionnaires were used to collect the primary data. 180 Questionnaires were randomly distributed to the college students in Thiruvananthapuram, Kerala, India for collecting primary data and 120 filled questionnaires were received back by the researchers. Hence 120 questionnaires were used for data analysis and interpretation. The primary data were collected in April 2018. The target group of this study includes college students of the two colleges of Thiruvananthapuram district namely University College of Kerala and Government Arts College.

### **University College, Thiruvananthapuram**

It is one of the oldest and most prestigious institutions of higher education in India, established in 1866 to impart English education to the common folk of erstwhile Travancore by H.H. Sri Ayilyam Thirunal Rama Varma Maharaja. The then Principal of the College was John Ross, a scholar of great repute. Having reached *Sesquicentennial* status, the College stands tall bringing forth thousands of luminaries such as the former President of India Sri. K.R Narayanan, numerous Cabinet Secretaries, Ambassadors, Civil Servants, IT doyens, Teachers, Poets, Writers, Artists, Politicians and the like. Offering 18 UG, 20 PG, 13 M.Phil and 16 Ph.D programmes, the College is undoubtedly vibrant academically. Its architecture, location, history and resourcefulness have made University College a spot not to be missed in the city, if not in the State. With staff strength of 218, of which more than sixty per cent are research degree holders, the College has sixteen research departments, 66 research guides and 299 research scholars. Its student-strength of 3294 comprises pupils from all social classes, mostly from the lower strata. Since the selection procedure to all the courses is based on merit alone, the percentage of financially challenged but meritorious students is the highest in this College. The college has also been accorded "College with Potential for Excellence" (CPE) status by the University Grants Commission. University College is also identified as a heritage institution by the Government of Kerala. University College got 18th Rank in the India Ranking 2018 (Colleges) with a score of 57.51. The College has been re-accredited with grade 'A' with a CGPA

of 3.02 (III Cycle) by the National Assessment and Accreditation Council of UGC (Source: <http://www.universitycollege.ac.in/>).

### **Government Arts College, Thiruvananthapuram**

It has a long and glorious history. Originally a part of H. H. The Maharaja's College, Thiruvananthapuram, it was separated from the parent institution in 1924 (vide GO. R.O.C. No. 395 of 23 Legis, E dated 9th May, 1924 issued by the Government of H. H. The Maharaja of Travancore) to house the Arts Departments, and named H. H. The Maharaja's College of Arts. The parent college was named H. H. The Maharaja's College of Science. When the new college opened on the 4th of July, 1924, the Departments of History, Economics, Sanskrit and Dravidian Languages and English were transferred to it from the parent institution. Honors courses in English, History and Economics were also conducted here at that time. The Department of Philosophy was opened in 1925. Ten years later, in 1935, the college started the Honors Course in Malayalam and the Post-graduate Course in Sanskrit the following year. With the founding of the University of Travancore in 1937, the two colleges were amalgamated into H.H. the Maharaja's University College, Trivandrum, and the Arts College at Thycaud functioned as a part of the University College. Independence, in 1947, there was an attempt to try out a new system of University Education, and as a part of this experiment, the Arts College was converted into the University Previous School, In 1949, with the introduction of the Intermediate Course, the institution came to be called the University Intermediate College. In 1956, the Intermediate Course was stopped and the institution once again became a college coaching students for the University Previous Examination.

### ***Sample Distribution***

<b>S. No</b>	<b>Name of the College</b>	<b>No. Of Questionnaires distributed</b>	<b>No. Of questionnaires received</b>	<b>Response Rate</b>
1	University College, Thiruvananthapuram	90	60	33.33
2	Government Arts College, Thiruvananthapuram	90	60	33.33
<b>Total</b>		<b>180</b>	<b>120</b>	<b>66.66%</b>

### Scope and limitations of the Study

The topic of research study is “Use and perception of E-resources among the college students of Thiruvananthapuram, Kerala.: A study.”

To collect for this study, college students of Thiruvananthapuram, Kerala are taken into consideration. The target respondents in other colleges are not included in this study. There is a scope for other future researchers to take this area for their study. The geographical area of Government Arts College (GAC), Thiruvananthapuram and University College, Thiruvananthapuram this study is confined only to Thiruvananthapuram city in Kerala.

The study pertains to Government Arts College (GAC), Thiruvananthapuram and University College, Thiruvananthapuram, Kerala. This study is not included the others colleges at Thiruvananthapuram city in Kerala.

### Referencing Style Used

The report format follows the APA (American Psychological Association) manual of style in rendering the Bibliography with slight modifications regarding Indic and Islamic names.

### Data Analysis and Interpretation

**Table 1**

*Gender and Age – wise distribution of respondents*

	Particulars	No. of Respondents	Percentage
<b>Gender</b>	Male	54	45
	Female	66	55
	<b>Total</b>	<b>120</b>	<b>100</b>
<b>Age</b>	Below 20 years	30	25
	21 – 25 years	43	35.8
	26 – 30 years	47	39.2
	<b>Total</b>	<b>120</b>	<b>100</b>

Table 1 reveals the gender and age-wise distribution of the respondents. In this study, a majority of 66 (55%) respondents come under the female category while 54 (45%) respondents fall under the male category. The above table also indicates that among the overall 120 respondents, a majority of 47 (39.2%) respondents belong to 26-30 years of age group and it is

followed by 43 (35.8%) respondents 21 – 25 years age group and 30 (25%) of them below 20 years age group respectively.

**Table 2**

*Distribution of respondents according to marital status and Nativity*

Particulars		No. of Respondents	Percentage
Marital Status	Married	28	23.3
	Unmarried	92	76.7
<b>Total</b>		120	100
Residing sector	Rural	64	54
	Urban	56	46
<b>Total</b>		120	100

**Source: Primary data**

Table 2 describes the distribution of respondents according to marital status and residential sector. In this study, a majority of 92 (76.7%) respondents are unmarried while 28 (23.3%) respondents are married. The above table also indicates that of the overall 120 respondents, a majority of 64 (54%) respondents are hailed from rural areas while 56 (46%) respondents are hailed from urban areas.

**Table 3**

*Department-wise distribution of the Respondents*

S. No	Department	No. of respondents	Percentage
1.	Malayalam	33	27.50
2.	English	26	21.67
3.	Hindi	45	37.50
4.	Sanskrit	10	8.33
5.	Botany	3	2.50
6.	B.Com	3	2.50
	<b>Total</b>	<b>120</b>	<b>100</b>

**Sources: primary data**

Table 3 shows the department-wise distribution of the respondents. In this study, 33 respondents (27.50%) belong to Malayalam department, 26 respondents (21.67%) English department, 45 respondents (37.50%) Hindi department, 10 respondents (8.33%) Sanskrit

department, 3 respondents (2.50%) science department and another 3 respondents (2.50%) belong to Commerce department. Thus, language students are more in the present study than that of other disciplines.

**Table 4**

**Course-Wise distribution of respondents**

Particulars		No. of Respondents	Percentage
<b>Undergraduate Students</b>	I Year	24	20
	II Year	23	19.16
	III Year	23	19.16
<b>Postgraduate Students</b>	I Year	24	20
	II Year	26	21.66
Total		120	100

**Source: Primary data**

Table 4 presents the course-wise distribution of respondents.

**Undergraduate Students**

24 (20%) respondents belong to first year and 23(19.16%) respondents belong to second year while 23 (19.16%) respondents belong to third year of study.

**Postgraduate Students**

24 (20%) respondents belong to first year and 26 respondents (21.66%) belong to second year.

**Table 5**

***Frequency of visit the College Library: Gender-wise Distribution of the respondents***

S. No	Gender	Frequency (%)						Total N
		Daily	Weekly	Twice in a week	Twice in a month	Monthly	Occasionally	
1.	Male	10 (18.52)	14 (25.93)	8 (14.81)	10 (18.52)	6 (11.11)	6 (11.11)	54
2.	Female	21 (31.82)	16 (24.24)	6 (9.09)	9 (13.64)	8 (12.12)	6 (9.09)	66
Total		31	30	14	19	14	12	120

**Source: Primary data**

Table 5 describes the frequency of visiting College Library by the gender-wise respondents. Among the male respondents, 10 (18.52%) respondents visit the library daily, 14 (25.93%) weekly, 8 (14.81%) twice in a week, 10 (18.52%) twice in a month, 6 (11.11%) monthly and 6 (11.11) respondents visit the library occasionally. Among the female respondents, 21 (31.82%) respondents visit the library daily, 16 (24.24%) weekly, 6 (9.09%) twice in a week, 9 (13.64%) twice in a month, 8 (12.12%) monthly and the remaining 6 (9.09%) respondents visit the library occasionally. Thus, it is inferred that one fourth of the students visit the library daily and weekly.

**Testing of Hypothesis 1****Ho: Hypothesis**

There is no association between the gender of the respondents and their frequency of visiting the library.

**Chi –Square Summary Result**

Chi –Square Calculated Value	Degree of Freedom	Chi –Square Table Value 5%
3.49	5	11.071

The table value of  $\chi^2$  for 5 degrees of freedom at 5% level of significance is 11.071. The calculated value of  $\chi^2$  is lower than the table value and hence the Null hypothesis is accepted and hence Alternative hypothesis is rejected. It is concluded that there is no association between the gender of the respondents and the frequency of visiting the library.

**Table 6***Time Spent in the College library per day: Age-wise distribution of the respondents*

S. No	Age Group	Hours					Total N
		Up to 1 hour	1-2 hours	2-3 hours	3-4 hours	More than 4 hours	
1.	Below 20 years	6 (20%)	5 (16.7%)	6 (20%)	6 (20%)	7 (23.3%)	30
2.	21 - 25 years	8 (17.9%)	14 (25%)	5 (17.9%)	10 (21.4%)	6 (17.9%)	43
3.	26 - 30 years	8 (15.6%)	11 (21.9%)	8 (18.8%)	5 (15.6%)	15 (28.1%)	47
<b>Total</b>		22	30	19	21	28	120

**Source: Primary data**

Table 6 reflects the time spend in the college library per day by Age-wise respondents. Among the below 20 years age group respondents, 6 ( 20%) respondents spend an hour, 5 (16.7%) spend 1-2 hours and 6 (20%) respondents spend 2-3 hours. 6 (20%) respondents spend 3-4 hours per day. 7 (23.3%) respondents spend more than four hours a day. Among the below 21-25 years age group respondents, 8 (17.9%) respondents spend an hour, 14 (25%) spend 1-2 hours, 5 (17.9%) respondents spend 2-3 hours, 10 (21.4%) respondents spend 3-4 hours per day and 6 (17.9%) respondents spend more than four hours a day. Among the below 26-30 years age group respondents, 8 ( 15.6%) respondents spend an hour, 11 (21.9%) spend 1-2 hours, 8 (18.8%) respondents spend 2-3 hours, 5 (15.6%) respondents spend 3-4 hours and 15 respondents (28.1%) spend more than four hours per day. Hence a majority of the respondents spend 1-2 hours for using the college library per day.

**Testing of Hypothesis 2****Ho: Hypothesis**

There is no association between age category of the respondents and their spend in the college library per day.



### Chi –Square Summary Result

Chi-Square Calculated Value	Degree of Freedom	Chi-Square Table Value 5%
8.12	8	15.507

The table value of  $\chi^2$  for 8 degrees of freedom at 5% level of significance is 15.507. The calculated value of  $\chi^2$  is lower than this table value and hence the Null hypothesis is accepted and hence Alternative hypothesis is rejected. It is concluded that there is no association between age category of the respondents and their spent in the college library per day.

**Table 7**

*Purpose of visiting college library: Gender –wise distribution of the Respondents*

S. No	Purpose of visiting college Library	Gender		Total N
		Male	Female	
1.	Updating subject knowledge	8 (15%)	9 (14%)	17
2.	For lending books	7 (13%)	11 (17%)	18
3.	Prepare for examination	8 (15%)	10 (15%)	18
4.	For taking notes	8 (15%)	8 (12%)	16
5.	For reading newspaper	7 (13%)	11 (17%)	18
6.	To complete assignment	9 (16%)	9 (14%)	18
7.	Others	7 (13%)	8 (12%)	15
Total		54	66	120

Table 7 describes the purpose of visiting college library among the male and female respondents.

### **Male Students**

Out of 54 male respondents, a majority of 9 respondents (16%) visit the library to collect required information to complete their assignments. It is followed by 8 (15%) respondents who visit the library for updating subject knowledge, 8 (15%) for preparing for examination, 8 (15%) for taking notes, 7 (13%) for reading newspaper, 7(13%) for borrowing books and the remaining 7 (13%) respondents visit the library for other purposes.

### **Female Students**

Among the 66 female respondents, a majority of 11 (17%) respondents visit the library for reading newspapers and borrowing books, 10 (15%) for preparing for examinations, 9 (14%) updating subject knowledge and completing assignments, 8 (12%) for taking notes and the remaining 8 (12%) respondents visit the library for other purposes.

**Table 8**

#### ***Methods of learning internet skills***

<b>S. No</b>	<b>Methods</b>	<b>No. of respondents</b>	<b>Percentage</b>
1.	Guidance from friends	40	33.4
2.	Trial & error method/ self-instruction	45	37.6
3.	Formal training Programmes	15	12.5
4.	Courses	15	12.4
5.	Others	5	4.1
<b>Total</b>		<b>120</b>	<b>100</b>

**Source: Primary data**

Table 8 discusses the methods adopted by the respondents to learn about various internet skills. ‘Trial & error method/self-instruction’ is the most preferred method among the respondents. This method of learning is being used by 45 respondents (37.6%) followed by 40 respondents (33.4%) who learn internet skills taking guidance from their friends. 15 respondents (12.5%) learn about internet skills with formal training programmes and courses. Just 5 respondents (4.1%) depended on other methods.

**Table 9**

*Level of Satisfaction of internet services at college Library: he marital status–wise respondents*

S. No	Marital status	Satisfaction				Total N
		Highly satisfied	Satisfied	Dissatisfied	No comments	
1.	Married	7 (25%)	10 (36%)	6 (21%)	5 (18%)	28
2.	Unmarried	33 (36%)	15 (16%)	32 (35%)	12 (13%)	92
<b>Total</b>		<b>40</b>	<b>25</b>	<b>38</b>	<b>17</b>	<b>120</b>

**Source: Primary data**

Table 9 shows the satisfaction while using college internet services by the marital status-wise respondents. In this study among the married respondents, 7 (25%) respondents are Highly Satisfied, 10 (36%) are Satisfied, 6 (21%) respondents are Dissatisfied, 5 (18%) respondents do not express any comments. Among the 92, status -wise unmarried category of respondents, 33 (36%) respondents are Highly Satisfied, 15 (16%) respondents report that while using internet services Satisfied, 32 (35%) respondents are Dissatisfied, 12 (13%) report that access of while using internet services no comments. Hence most of the respondents report that while using internet services of the respondents.

### **Testing of Hypothesis 3**

#### **Ho: Hypothesis**

There is no Association between Residing Sector category of the respondents and their while using Internet services.

#### **Chi –Square Summary Result**

Chi –Square Calculated Value	Degree of Freedom	Chi –Square Table Value @5%
6.21	3	7.815

The table value of  $\chi^2$  for 3 degrees of freedom at 5% level of significance is 7.815. The calculated value of  $\chi^2$  is lower than this table value and hence the Null hypothesis is accepted and hence Alternative hypothesis is rejected. It is concluded that there is no Association between Residing Sector category of the respondents and their while using Internet services.

**Table 10**

*Rate of satisfaction of various types of E-sources*

S. No	E-sources	Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied
1	E-Journals	35 (29%)	41 (34%)	21 (17%)	14 (12%)	9 (8%)
2	E-Data archives	24 (20%)	51 (42.5%)	28 (23.3%)	15 (12.5%)	2 (1.5%)
3	E-Research Reports	25 (21%)	35 (29.1%)	35 (29.1%)	21 (17.5%)	4 (3.3%)
4	E-Maps	29 (25%)	45 (37.5%)	25 (26%)	12 (10%)	9 (7%)
5	E-Books	28 (23%)	49 (41%)	31 (26%)	9 (8%)	3 (2.5%)
6	E-Magazines	17 (14.5%)	34 (28%)	40 (33%)	26 (22%)	3 (2.5%)
7	E-Theses	17 (14.5%)	34 (28%)	40 (33%)	26 (22%)	3 (2.5%)
9	E-Newspapers	22 (18%)	34 (28%)	30 (25%)	30 (25%)	4 (4%)
10	OPAC	10 (8%)	24 (20%)	24 (20%)	50 (42%)	12 (10%)
11	CD-ROM Databases	13 (11%)	34 (28%)	23 (19%)	39 (33%)	11 (9%)

**Source: Primary data**

Table 10 reveals the level of satisfaction of the respondents in respect of various types e-sources.

### Highly Satisfied

A majority of 35 (29%) respondents are highly satisfied with e-journals followed by 29 (25%) respondents who are highly satisfied with e-maps and 28 (23%) respondents who are highly satisfied with e-books. The other resources with which the respondents are highly satisfied include e-research reports 25 (21%), e-data archives 24 (20%) and e-newspapers 22 (18%).

**Table 11**

*Rate of satisfaction of various types of E-sources*

S. No	E-sources	Total Weightage	Mean Weightage	Rank
1.	E-Journals	493	4.11	1
2.	E-Data archives	440	3.7	3
3.	E-Research Reports	416	3.4	5
4.	E-Maps	428	3.5	4
5.	E-Books	428	3.5	4
6.	E-Magazines	450	3.75	2
7.	E-Thesis	396	3.3	6
9.	E-Newspaper	400	3.3	6
10.	OPAC	330	2.8	8
11.	CD-ROM Database	359	2.10	7

**Source: calculated value**

Table 11 indicates the level of satisfaction of various types of E-sources. The total weightages mean and ranking of opinion about the Level of satisfaction of various types of E-sources are presented in the table below.

In order to know the relative frequency of opinion about use Level of satisfaction of various types of E-sources college library, scores of 5, 4, 3, 2 and 1 are given to responses of Highly satisfied, Satisfied, Neutral, Dissatisfied and Highly Dissatisfied. Total weight age is calculated for each opinion about the use Level of satisfaction of various types of E-sources college library. Mean weightage is calculated by dividing the total weightage by the number of respondents included in the sample. Based on the Mean weightage the Level of satisfaction of various types of E-sources college library have been ranked.

**Table 12*****Search Methods Adopted***

<b>S. No</b>	<b>Methods</b>	<b>No. of Respondents</b>	<b>Percentage</b>
1.	Keyword	78	48.34
2.	Author	25	39.16
3.	Articles Title	10	9.16
4.	Journals Title	7	3.34
	<b>Total</b>	<b>120</b>	<b>100</b>

**Source: Primary data**

Table 12 reveals the methods employed by the respondents to search for required information in e-resources. A majority of 78 respondents (48.34%) search for the e-resources with 'Keywords'. It is followed by 25 respondents (39.16%) who carry out author search, 10 respondents (9.16%) title (Article) search and the remaining seven respondents (3.34%) make use of 'Journals Titles' to search for information in the e-resources. Thus, a majority of the respondents search for the e-resources by Keyword.

**Table 13*****Time spent for accessing e-resources: Nativity-wise distribution of the Respondents***

<b>S. No</b>	<b>Residing Sector</b>	<b>Hours (%)</b>				<b>Total N</b>
		<b>1Hour</b>	<b>2 Hours</b>	<b>3 Hours</b>	<b>More than 4 Hours</b>	
1.	Rural	21 (33%)	13 (20%)	16 (25%)	14 (22%)	64
2.	Urban	11 (20%)	13 (23%)	17 (30%)	15 (27%)	56
	<b>Total</b>	<b>32</b>	<b>26</b>	<b>33</b>	<b>29</b>	<b>120</b>

**Source: Primary data**

Table 13 shows the time spent by the respondents for accessing e-resources in terms of their residing sector. Among the rural respondents, 21 (33%) respondents spend an hour per day to access E-resources followed 16 (25%) respondents spending 2 hours, 16 (25%) 3 hours and 14

(5.5%) respondents more than 4 hours. Among the urban respondents, a majority of 17 (30%) respondents spend 3 hours per day to access e-resources followed by 15 (27%) responding spending more than 4 hours, 13(23%) 2 hours and the remaining 11 (20%) respondents spent an hour a day to access e-resources.

#### Testing of Hypothesis 4

##### Ho: Hypothesis

There is no association between the Nativity of the respondents and the time spent per day to access e- resources.

##### Chi –Square Summary Result

Chi-Square Calculated Value	Degree of Freedom	Chi-Square Table Value 5%
4.102	3	7.815

The table value of  $\chi^2$  for 3 degrees of freedom at 5% level of significance is 7.815. The calculated value of  $\chi^2$  is less than that of the table value and hence the Null hypothesis is accepted and hence Alternative hypothesis is rejected. It is concluded that there is no association between residing sector category of the respondents and the time spent per day to access e-resources.

**Table 14**

##### *Tools deployed to search and access e-resources*

S. No.	Options	No. of Respondents	Percentage
1.	Internet (Google, Yahoo)	48	29.2
3.	CD-ROM Databases	12	8.3
4.	Online Databases	24	20.0
5.	UGC-Infonet Consortium	28	23.3
6.	Online citation indices (Scisearch, Google scholar, WoS, Scopus etc.)	8	6.7
	<b>Total</b>	<b>120</b>	<b>100</b>

**Source: Primary data**

Table 14 describes the opinion about the ways to searching and accessing electronic information. In this study 29.2% of the respondents search and access the electronic information from the internet (Google, Yahoo) and it followed by, 23.3% of the respondents search and access UGC-infonet journals, 20% of the respondents search and access online databases, 8.3% of the respondents search and access CD-ROM databases and 6.7% of the respondents an online citation indices (Scisearch, Google Scholar, WoS, Scopus etc.) respectively.

**Table 15****Problems faced while using E-resources**

S. No	Problems	No. of respondents	Percentage
1.	Slow Speed of Systems	58	48.33
2.	Difficulty in accessing full text	38	31.67
3.	Core journals are few in number	11	9.17
4.	Searching is difficult	13	10.83
	Total	120	100

**Source: Primary data**

Table 15 shows the major problems faced the respondents while using e-resources. A majority of 58 (48.33%) respondents reported that the computer systems work slow and the speed of working is not up to the expected level. It is followed by other problems such as ‘difficulty in accessing full text’ 38 (31.67%), ‘Non-availability of sufficient core journals’ 11, (9.17%) and ‘difficulty in searching’ 13 (10.83%).

**Findings of the study****Gender**

The most of the majority of the 66 respondents (55%) belong to female.

**Age**

47 (39.2%) of the respondents belong to the category of age 26 – 30 years.

**Marital status**

92 (76.7%) of the students belong to unmarried that use of e-resources.



**Residing sector**

64 (54%) most of the respondents belong to rural.

**Department**

45 (37.50%) most of the respondents belong to Hindi

**Status**

Most of the 26 respondents (21.66%) belong to the category of second year postgraduate students.

**Frequency of visit the College Library**

Therefore one fourth of the male and female students visit the library daily.

- There is no association between the gender of the respondents and their frequency of visiting the library.

**Time Spend in the College library per day**

25% of the respondents spend 1-2 hours for using the college library per day.

- There is no association between age category of the respondents and their spend in the college library per day.

**Purpose of visit the college Library**

66 (55%) of the respondents the gender -wise female respondents visit the college library.

**Methods of learning internet skills**

37.6% majority of the respondents learn internet skills by Trial & error method/ self-instruction.

**Level of Satisfaction of internet services at college Library**

33.33% of the married and unmarried respondents are highly satisfied of using college internet services.

- There is an Association between Residing Sector category of the respondents and their while using Internet services.

**Rate of satisfaction of various types of E-sources**

35 (29%) respondents are highly satisfied with use of e-journals.

**Methods of Searching articles**

48.34% majority of the respondents search for the articles by Keyword wise in the in college libraries.

**Time spent for accessing e-resources**

26.67% of the rural and urban respondents spend an hour for using E- resources

- There is no association between the Nativity of the respondents and the time spent per day to access e- resources.

### **Tools deployed to search and access e-resources**

29.2% of the respondents use Google for search information from internet.

### **Major problems faced while using E-resources**

48.33% majority of the respondents faced main problems for using E-resources is slow speed of systems.

### **Suggestions**

In the light of the study, its results and the experience of the preaching investigator, the following suggestion are made to be adopted in

- ❖ It is suggested that college authority should appoint more number of library professionals with IT knowledge.
- ❖ It is suggested that the college authority should subscribe more number of E-journals.
- ❖ It is suggested that awareness programmes and Training programme should be conducted for all students on a periodical basic to enlighten them about academic e-resources.
- ❖ To suggest various improvement measures to increase the effective use of electronic information sources by the college students.
- ❖ There are some differences among the urban and rural respondents for frequency of using E- resources. Urban respondents are slightly better than rural. Hence it is suggested that they should be given more care for utilizing e-resources by improving internet skills programmes.

### **CONCLUSION**

Libraries have always welcomed new changes for their services and satisfying clientele's needs. It's a high time for traditional libraries that they change their approach as the availability of the digital resources is growing day by day. In India, already many library net ways such as INFLIBNET, Developing Library Network (Formerly known as DELNET). PUNENET, MALIBNET etc. are established and marching towards their respective goals. Through these networks only consortia purchase and preservation programmes for digital resources can be successfully implemented. For this necessary steps such as awareness and training among the students must be ensured and moreover essential infrastructure should be setup at each college.

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